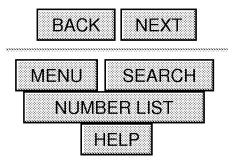
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 $1.\frac{JP,11-354064,A}{(1999)}$



JAPANESE

[JP,11-354064,A]

CLAIMS DETAILED DESCRIPTION
TECHNICAL FIELD PRIOR ART
EFFECT OF THE INVENTION
TECHNICAL PROBLEM MEANS
DESCRIPTION OF DRAWINGS
DRAWINGS

[Translation done.]

* NOTICES *

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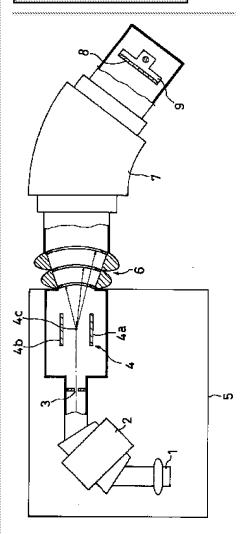
- 1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1]An electromagnetic scan of an ion beam within a scan layer which accelerates or slows down ion which carried out mass separation to predetermined energy, and includes a reference axis of a beam, In ion implantation equipment which combined an instrumental scan to which a substrate by which an ion implantation is carried out along a Drawing selection

Representative draw



[Translation done.]

straight line which intersects perpendicularly with this scan layer is moved, The 1st sector electromagnet and mass separation slit for carrying out mass separation to a course of this ion beam are provided, An electrostatic deflection device for scanning a beam ahead of this mass separation slit and an acceleration tube provided with two or more circular electrodes are formed one by one, Ion implantation equipment having installed the 2nd sector electromagnet whose deflection surface furthermore corresponds with a deflection surface of this electrostatic deflection device ahead of this acceleration tube, and coinciding a center of curvature of a circular electrode of this acceleration tube, and an entrance-side focus of this 2nd sector electromagnet with a deflection center of this electrostatic deflection device, respectively. [Claim 2] The ion implantation equipment according to claim 1 characterized by providing an electromagnet for a scan instead of the above-mentioned electrostatic deflection device as a means to scan an ion beam electromagnetically. [Claim 3]The ion implantation equipment according to claim 1 or 2 providing the 3rd sector electromagnet whose deflection surface corresponds with the above-mentioned scan layer between the above-mentioned mass separation slit, the above-mentioned electrostatic deflection device, or the above-mentioned electromagnet for a scan.

[Claim 4] As a means to scan an ion beam electromagnetically, the 3rd sector electromagnet whose deflection surface corresponds with the abovementioned scan layer instead of the above-mentioned electrostatic

deflection device is provided, A portion in which this 3rd sector electromagnet is provided among vacuum chambers which the abovementioned ion beam passes is made to become independent electrically, The ion implantation equipment according to claim 1 making an ion beam scan within this scan layer by modulating potential of ion which furthermore passes this 3rd sector electromagnet. [Claim 5]By coinciding a deflection surface of the 3rd sector electromagnet of the above with a deflection surface of the 1st sector electromagnet of the above for performing mass separation, and making direction of a magnetic field in this 3rd sector electromagnet into direction of a magnetic field in this 1st sector electromagnet, and reverse, The ion implantation equipment according to claim 3 or 4 using a reference axis of a beam in this portion as S character or Z shape.

[Translation done.]